

## Angle measuring device using clamping means

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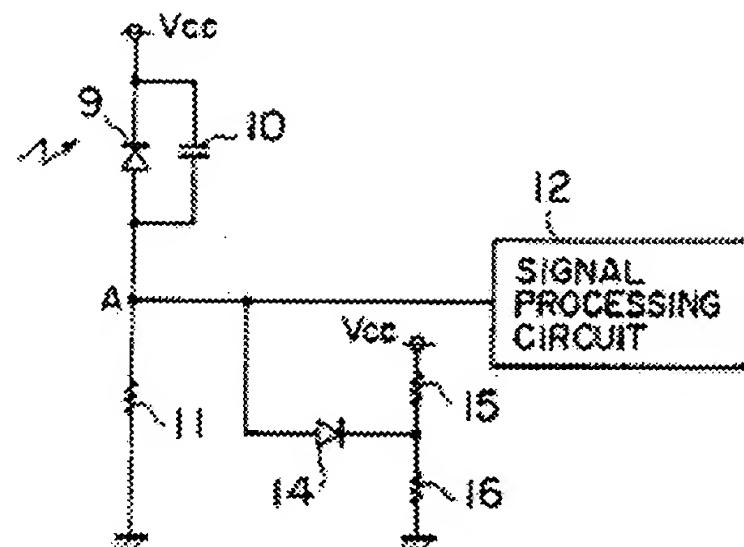
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An angle measuring device for measuring the turning angle of a crankshaft in an internal combustion engine in order to control the ignition timing, etc. thereof comprises: a rotating disc adapted to rotate in synchronization with the rotation of a crankshaft and having a plurality of slits formed along the circumference thereof; light-emitting elements arranged in the vicinity of the rotating disc; a photodiode adapted to receive light emitted from the light-emitting elements through the slits of the rotating disc; a resistor for converting electric-current signals output from the photodiode into voltage signals; a clamping device for clamping the maximum voltage at the output terminal of the converter to such a voltage value as will not allow the photodiode to be forward-biased, and a signal processing circuit adapted to measure the turning angle of the rotating disc by processing the electric-current signals converted into voltage signal by the resistor.



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